

and smaller. Captured by Mr. Dodgson, of the Royal Artillery.

In the collection of H. Grose Smith.

Melitæa Dodgsoni.

Male.—*Upperside.* both wings bright orange-brown, fringes white, spotted with black; a marginal black line and spots. Anterior wings with a submarginal row of black spots, the three lowest curving inwardly, inside of which, near the costa, are two black spots, followed by a central curved row of seven black spots, extending from the costal to near the inner margin; the third and fourth spots elongated, the seventh quadrate, the usual markings in the cell; below the cell near the base is a figure-of-8-marking, inside which is a hastate spot.

Posterior wings with a marginal and submarginal band of spots and a few markings near the base, which is dusky brown.

Underside. Anterior wings bright brown; apex and outer margin stramineous; fringe and spots as above, but the spots are smaller and the three lowest of the central row are nearly obsolete.

Posterior wings stramineous, with the usual two red bands, the row of spots between which approximate to the inner band; the spots on the lower side of the submarginal red band larger than on the upperside and lunular.

Female lighter than the male, and from the central band to the outer margin more or less mottled with pale fulvous.

Expanse of wings, male $1\frac{1}{2}$, female $1\frac{3}{4}$ inch.

Hab. Gwashki.

This butterfly belongs to the *Didyma* group.

In the collection of H. Grose Smith.

XV.—*Descriptions of some new Species of Land-Shell from Sumatra, Java, and Borneo.* By EDGAR A. SMITH.

AMONG the very valuable collections recently sent to this country by Mr. John Whitehead are a few land-shells which he obtained in the northern part of Borneo, consisting of the following species:—1, *Nanina regalis*, Benson; 2, *N. subconsul*, sp. n.; 3, *Trochomorpha Metcalfei*, Benson; 4, *T. planorbis*, Lesson; 5, *T. conicoides*, Metcalfe, var. *parva*; 6,

Leptopoma undatum, Metcalfe ; 7, *L. sericatum*, Pfr. ; 8, *L. Whiteheadi*, sp. n. ; 9, *Opisthoporus pterocycloides*, Pfr.

The new species from Sumatra were partly obtained by Mr. H. O. Forbes and partly by Mr. Carl Bock, both well-known eastern travellers.

Helicarion Bocki.

Testa anguste perforata, viridi-cornea, nitida, suborbicularis ; anfractus 4-5, convexiusculi, rapide accrescentes, striis spiralibus, tenuissimis incrementique lineis sculpti, ultimus superne rotunde angulatus, supra angulum concave excavatus spiraliterque subsulcatus, inferne striis concentricis minutissimis lineisque incrementi ornatus ; sutura profunda, canaliculata ; spira paulo elevata ; apertura magna, parum obliqua ; columella superne anguste reflexa.

Diam. maj. 22, min. 18 ; alt. 13 millim.

Hab. Sumatra. Collected by Mr. Carl Bock.

This species is readily distinguishable by the angulation of the body-whorl and the excavation above it. The last whorl is much impressed at the suture, forming a remarkably deep canaliculation. Besides the very fine spiral striæ, which everywhere cover the surface, the upperside of the body-whorl exhibits a number of spiral shallow sulci, which are visible to the naked eye. The lines of growth are well-marked, and at the suture are somewhat plicate.

Nanina hoodjongensis.

Testa profunde perforata, depresso globosa, mediocriter tenuis, viridi-flava, fasciis duabus nigrescenti-fuscis supra medium anfract. ultimi ornata, paulo nitida ; anfractus 6, rapide accrescentes, undique subspiraliter confertim corrugati, convexi, ad suturam angustissime marginati, ultimus magnus, paulo inflatus, antice vix descendens, ad peripheriam porca indistincta instructus ; apertura obliqua, elongato-lunata, albida superne bifasciata ; peristoma tenue, marginibus leviter conniventibus, columellari superne breviter reflexo.

Diam. maj. 53, min. 42½ ; alt. 37 millim.

Hab. Hoodjong or Hoedjoeng, about 120 miles from the southern extremity of Sumatra, at an elevation of 2000 feet.

The single specimen of this fine species was collected at the above locality by Mr. H. O. Forbes. It is as inflated as *N. obliquata* of Reeve (Monog. Helix, Conch. Icon. f. 384), but has a more elevated conical spire ; in other respects it is altogether different. The wrinkling of the surface is rather coarse, and on the underside of the body-whorl has a distinctly concentric direction. The slight ridge at the periphery falls

upon the lower band, which is of a somewhat darker tint than the upper one.

Nanina Rumphii, var.

A specimen collected by Mr. Carl Bock at Sydjoendjoeng differs somewhat from the normal form of this species. It is much more acutely keeled, and the curved lines of growth are rather more strongly granulated. It has not been previously recorded from Sumatra.

Nanina foveata of Pfeiffer is another variety of this species, being peculiar on account of the *more or less* undulate or plicate character of the upper surface. The locality "India" must be regarded in the sense in which it was formerly used, as applying to the East Indies and not to British India only.

Nanina subconsul.

Testa *N. consuli* simillima, superne tamen minus nitida; anfractibus paulo planioribus instructa, sculptura minutissime rugulosa superne ornata, inferne spiraliter microscopice striata.
Diam. maj. 19, min. 17; alt. 10½ mill.

Hab. North Borneo (*John Whitehead*).

This species is very closely related to *N. consul*, and is only distinguished from that species by its duller upper surface, resulting from a different microscopic sculpture, and its slightly less convex whorls. The spiral striæ on the base are visible under an ordinary lens, but the minute rugulose lines of the upper surface are discernible only under a stronger magnifier.

Helix (Trochomorpha) conicoides, Metcalfe, var. *parva*.

Two specimens collected in Northern Borneo by Mr. John Whitehead are exceptionally small and depressed, and remarkable also on account of the basal margin of the peristome being slightly thickened, narrowly expanded, and reflexed, a feature which does not occur in ordinary examples. In colour, texture, and sculpture they offer no differences. Although consisting of seven whorls, the greatest diameter is only 11 millimetres.

Helix (Geotrochus) bantamensis.

Testa elate conica, perforata, mediocriter tenuis, griseo-alba; anfractus 7, tres superiores convexi, cæteri planiusculi, minute granulati, striisque incrementi sculpti, ad suturam carina mar-

ginati, ultimus ad peripheriam acute carinatus, infra subplanus, antice vix descendens; apertura obliqua, parva; peristoma albidum, margine superiore sinuato, leviter reflexo, basali latius expanso, superne umbilicum semiobtegente.

Diam. maj. 11, min. 10; alt. 12 mill.

Hab. Bantam, Java.

This species is as conical as *H. elata* (vide Reeve's Conch. Icon. fig. 1248), but the aperture is different, the basal margin being more curved. The apex of the spire is rather large and obtuse and the upper whorls are considerably more convex than the three last. The fine granulation of the surface is invisible to the naked eye. The acute keel of the body-whorl passes up the spire, giving a carinate appearance to the suture.

Leptopoma Whiteheadi.

Testa conica, umbilicata, mediocriter tenuis, purpurascens-vel fusciscenti-cornea, maculis rufis sutura radiantibus picta, epidermide tenui sublamellata amicta; anfractus 6, convexi, carinis tenuibus 2-3 instructi, incrementi lineis striisque spiralibus inconspicuis sculpti, sutura subprofunda juncti, ultimus carinis ad 6 ornatus; apertura modice magna; peristoma anguste reflexum, bimarginatum.

Diam. maj. $12\frac{1}{2}$, min. 10; alt. $12\frac{1}{2}$ mill.

Hab. Northern Borneo.

This interesting species was collected by Mr. John Whitehead, with whose name I have associated it. It is peculiar on account of the epidermis, which upon the keels is produced into very short tufts. The operculum is very thin, yellowish, and consists of about eight whorls.

In the British Museum are two specimens also from Borneo which are smaller than those described, and differ also in having the peristome of a darker colour, and the brown markings radiate from the suture in an irregular zigzag manner.

Two other specimens from Bantam, in Java, also apparently belong to this species. They are still smaller and have the epidermis produced into short hairs upon the principal ridges.